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| 10/529,346  | 03/25/2005    | Kalle Ahmavaara      | 47092.00113         | 6681             |
| 32294   | 7590          | 03/10/2009           | EXAMINER            |                  |
| SQUIRE, SANDERS & DEMPSEY LLP.<br>8000 TOWERS CRESCENT DRIVE<br>14TH FLOOR<br>VIENNA, VA 22182-6212 |               |                      | BALAOING, ARIEL A   |                  |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |
|------------------------------|--------------------------------------|---|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/529,346 | <b>Applicant(s)</b><br>AHMAVAARA ET AL. |
|                              | <b>Examiner</b><br>ARIEL BALAOING    | <b>Art Unit</b><br>2617                 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 December 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30,32-34 and 37-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30,32-34 and 37-49 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 March 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 12/18/2008 have been fully considered but they are not persuasive.

Regarding the applicant's arguments that:

*"Claims 30 and 32-34 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection.*

*The Office Action asserted that claims 30 and 32-34 recite the limitations "a data structure," "a computer program product," and/or "a computer readable medium," but these limitations are not included in Applicants' originally-filed disclosure, and therefore constitute new matter. However, this rejection is improper because it appears to rigidly analyze the disclosure in view of the precise words "a data structure" and "a computer readable medium." Instead, the appropriate analysis is whether the specification discloses the concept behind the words.*

*Section 112 of the Patent Act states that the "specification shall contain a written description of the invention." 35 U.S.C. §112. The Federal Circuit has held that "[t]o fulfill the written description requirement, the patent specification must describe an invention in sufficient detail that one skilled in the art can clearly conclude that the inventor invented what is claimed." *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1364, 67 USPQ2d 1876, 1885 (Fed. Cir. 2003). The Federal Circuit has explained, however, that "[t]he disclosure as originally filed does not ... have to provide in haec*

*verba support for the claimed subject matter at issue." Id. See additionally, Kao Corp. v. Unilever United States, Inc., 78 USPQ2d 1257, 1260 (Fed. Circ. March 21, 2006). In other words, there is no requirement that the precise language used in the claims appear in the specification, in order to satisfy the written description requirement. The concept claimed is fully supported in the specification, in such a way that one of ordinary skill in the art could clearly conclude that the inventor invented what is claimed. Therefore, the claims fully comply with the written description requirement.*

*The concept of "a data structure, comprising ... a service selection information configured to select a service" is disclosed, for example, in the specification at Figure 4 in which there is disclosure of a message comprising an access point name (APN) parameter configured to specify a requested service. One of ordinary skill in the art would appreciate that the message is for providing "a data structure, comprising a service selection information configured to select a service."*

*Furthermore, one of ordinary skill in the art would recognize that network elements and functional entities depicted, for example, in Figure 1 of the present application, are typically equipped with "[a] computer-readable storage medium," for example, a memory. Thus, Figures 1 and 4 and the associated discussion in the present application provide full and adequate support for the claim recitations. Accordingly, Applicants respectfully request that the rejection of claims 30 and 32-34 be withdrawn." (see page 14 and 15 of the remarks); the examiner respectfully disagrees. As originally filed, support for software and memory or specifically memory storing executable components are not disclosed in the applicant's specification and therefore*

fail to comply with the written description requirement of 35 U.S.C. 112, first paragraph. Although the use of a computer executed program stored on a computer readable memory are well known in the art, applicant has failed to detail the use of executable code stored on a storage medium.

Regarding the applicant's arguments that:

*"Applicants respectfully traverse the rejection of claim 28. The Office Action asserted that claim 28 was rejected because the method is allegedly not tied to another statutory class, or does not transform underlying subject matter, and thus is not a patent eligible process. However, the method of claim 28 is tied to another statutory class, specifically, the category of "machine." This can be seen explicitly from the recitation of "access point" in claim 28. An access point is a network device that clearly qualifies as a "machine." In addition, the method of claim 28 is implicitly tied to the apparatus of claim 12 because it recites the same features as those of claim 12.*

*Furthermore, claim 28 recites operations of extracting and using data, in particular, "a service selection information." These operations involve transformations of the data to different states, and therefore, the method of claim 28 transforms underlying subject matter to different states. Thus, the method is a patent eligible process. Accordingly, Applicants respectfully request that the rejection of claim 28 be withdrawn."* (see page 16 and 17 of the remarks); the examiner respectfully disagrees.

Although an "access point" (a particular machine) is recited in connection with the "selecting" step, it is not required in the performing of the step itself and therefore is neither an explicitly recited structural tie nor inherently involved in the step.

Furthermore, while claim 28 recites extracting and using of data (i.e. a process), as claimed, the extraction and using of data is not tied to a statutory class (e.g. identifying the apparatus that accomplishes the method steps, or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state).

Regarding the applicant's arguments that:

*"Based on its actual filing date, O'NEILL (filed February 3, 2003) is not prior art with respect to the present application since it was filed after October 1, 2002, which is the priority date for the present application. Applicants note that O'Neill's effective (not actual) filing date would appear to be February 4, 2002, based on its relationship to U.S. Provisional Patent Appln. No. 60/354,195 (the '195 application). Applicants note, however, that the '195 application is quite different, at least in form, from O'Neill. For example, the Figures of the '195 application are substantially different than the Figures of O'Neill. In any event, the '195 application was not published, as provisional applications are not published by the USPTO. Accordingly, for at least these reasons, it is respectfully requested that the rejection be withdrawn as based on a reference that is not prior art under 35 U.S.C. 102(e) or any other statutory section. If the rejection is maintained based on the disclosure of the '195 application, it is respectfully submitted that a prima facie rejection must substantiate the rejection with reference to the disclosure of the '195 application, by page and line number of that document." (see page 17 and 18 of the remarks).*

MPEP 2136.03 III states that the 35 U.S.C. 102(e) critical reference date of a U.S. patent or U.S. application publications and certain international application publications entitled to the benefit of the filing date of a provisional application under 35 U.S.C. 119(e) is the filing date of the provisional application with certain exceptions if the provisional application(s) properly supports the subject matter relied upon to make the rejection.

While the examiner agrees that the effective filing date of the O'NEILL reference is February 4, 2002, the examiner disagrees that the O'NEILL reference is not considered prior art. The effective filing date of February 4, 2002 based on the provisional application is earlier than the applicant's effective filing date of October 1, 2002 therefore qualifies as prior art. See MPEP 2136.03 and 35 U.S.C. 119 (e) with regards to effective filing date based on a provisional application.

The subject matter relied upon in O'NEILL is fully supported by the provisional application. See provisional application 60/354,195 abstract corresponding to both provisional and non-provisional application; sections 1, 2, and 3 with regards to AAA server, and access point hand-off using determined access point capabilities. Also see section 6.4 regarding Foreign Agent and Roaming Node Hand-Off using MIP registration/deregistration.

Regarding the applicant's arguments that:

*"As discussed above, O'Neill is not prior art with respect to the present application. In addition, based on its actual filing date, Lioy (filed April 2, 2003) is not prior art with respect to the present application since it was filed after October 1, 2002,*

*which is the priority date for the present application. Applicants note that Lioy's effective (not actual) filing date would appear to be April 5, 2002, based on its relationship to U.S. Provisional Patent Appln. No. 60/370,442 (the '442 application), or August 29, 2002, based on its relationship to U.S. Provisional Patent Application No. 60/407,469 (the '469 application). In any event, the '442 and the '469 applications were not published, as provisional applications are not published by the USPTO." (see page 20 of the remarks).*

MPEP 2136.03 III states that the 35 U.S.C. 102(e) critical reference date of a U.S. patent or U.S. application publications and certain international application publications entitled to the benefit of the filing date of a provisional application under 35 U.S.C. 119(e) is the filing date of the provisional application with certain exceptions if the provisional application(s) properly supports the subject matter relied upon to make the rejection.

While the examiner agrees that the effective filling date of the LIOY reference is August 29, 2002, the examiner disagrees that the LIOY reference is not considered prior art. The effective filing date of August 29, 2002 and April 5, 2002 based on the provisional applications are earlier than the applicant's effective filing date of October 1, 2002 therefore qualifies as prior art. See MPEP 2136.03 and 35 U.S.C. 119 (e) with regards to effective filing date based on a provisional application.

The subject matter relied upon in LIOY is fully supported by the provisional applications, since the specification is of LIOY is the same as the specification submitted in the 60/407469 application (more specifically paragraph 43).

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 30, 32-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Newly added Claims 30, 32-34 recite the limitation "a computer readable storage medium having computer-executable components". These limitations are not included in the applicant's originally filed disclosure (with respect to the 371 filing date), and therefore constitute new matter.

***Claim Rejections - 35 USC § 101***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 28, 37-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 28, and similarly dependent claims 37-42, based on Supreme Court precedent and recent Federal Circuit decisions, a 35 U.S.C 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible

process under 35 U.S.C 101 and should be rejected as being directed to non-statutory subject matter. See *Diamond v. Diehr*, 450 US 175, 184 (1981); *Parker v. Flook*, 437 US 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 US 63, 70, 71 (1972); *Cochrane v. Deener*, 94 US 780, 787-88 (1876). The Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances.

***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 12, 21, 27-30, 32-34, 48, 49 are rejected under 35 U.S.C. 102(e) as being anticipated by O'NEILL (US 2003/0176188).

Regarding claim 1, O'NEILL discloses a method (abstract), said method comprising: using an authentication message [**authorization message**] to signal a service selection information [**network access identifier/service profile identifier**] via said first network to an authentication server [**AAA server**] of a second network, the service selection information indicating an access point [**access node**] (abstract; paragraph 24, 31); and using said service selection information to connect to at least one service provided over said access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 12, O'NEILL discloses an apparatus [**authentication server**] (abstract), comprising: a processor to extract from a received authentication message a service selection information to select a service (abstract; paragraph 24, 31), wherein

the processor is configured to use said service selection information to establish a connection to services provided over an access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 21, O'NEILL discloses a apparatus (abstract), comprising: a processor configured to set in an authentication message a service selection information regarding selection of a network service (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 27, O'NEILL discloses a system [**figure 1**] for providing access from a first network [**roaming**] to a service of a second network [**home network**], said system comprising: a terminal device configured to provide access to a network service, said terminal device configured to set in an authentication message a service selection information regarding selection of said network service (abstract; paragraph 24, 31); and an authentication server device [**AAA server**] connected to a second network [**home network**], said authentication server device configured for providing an authentication mechanism, said authentication server device configured to extract from a received authentication message said service selection information to select said service, and to use said service selection information to establish a connection to services provided over an access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 28, O'NEILL discloses a method comprising: extracting from a received authentication message a service selection information to select a service (abstract; paragraph 24, 31); and b) using said service selection information to establish a connection to services provided over an access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 29, O'NEILL discloses a method comprising: setting in an authentication message a service selection information regarding selection of a network service at a terminal device (abstract; paragraph 24, 31).

Regarding claim 30, O'NEILL discloses a computer-readable storage medium having computer-executable components (abstract; paragraph 24, 31; it is inherently necessary to provide software and processing means to perform the processes disclosed by O'NEILL), comprising: using an authentication message [**authorization message**] to signal a service selection information [**network access identifier/service profile identifier**] via said first network to an authentication server [**AAA server**] of a second network, the service selection information indicating an access point [**access node**] (abstract; paragraph 24, 31); and using said service selection information to connect to at least one service provided over said access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 32, O'NEILL discloses a computer-readable storage medium having stored thereon a data structure (abstract; paragraph 24, 31; it is inherently

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necessary to provide software and processing means to perform the processes disclosed by O'NEILL), comprising: a service selection information to select a service (abstract; paragraph 24, 31).

Regarding claim 33, O'NEILL discloses a computer-readable storage medium having computer-executable components, (abstract; paragraph 24, 31; it is inherently necessary to provide software and processing means to perform the processes disclosed by O'NEILL), comprising: extracting from a received authentication message a service selection information to select a service (abstract; paragraph 24, 31); and b) using said service selection information to establish a connection to services provided over an access point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 34, O'NEILL discloses a computer-readable storage medium having computer-executable components, (abstract; paragraph 24, 31; it is inherently necessary to provide software and processing means to perform the processes disclosed by O'NEILL) comprising: setting in an authentication message a service selection information regarding selection of a network service at a terminal device (abstract; paragraph 24, 31).

Regarding claim 48, O'NEILL an apparatus (abstract), comprising: extracting means for extracting from a received authentication message a service selection information to select a service (abstract; paragraph 24, 31); and b) using said service selection information to establish a connection to services provided over an access

point indicated by said service selection information (abstract; paragraph 24, 31; actual services provided based on a combination of foreign and home operator policy).

Regarding claim 49, O'NEILL discloses an apparatus (abstract) comprising: setting means for setting in an authentication message a service selection information regarding selection of a network service at a terminal device (abstract; paragraph 24, 31; service profile identifier); and sending means for sending the authentication message (paragraph 31; authorization response).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 2-7, 13-16, 22-24, 26, 37, 38, 43,-45, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'NEILL (US 2003/0176188) in view of MCINTOSH et al (US 2003/0139180).

Regarding claim 2, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said first network is a wireless local area network. In the same field of endeavor, MCINTOSH discloses wherein a first network is a wireless local area network (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since the use of wireless local area networks is conventional and commonplace in the art and allows a system to be designed using standardized protocols.

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said second network is a cellular packet-switched network. In the same field of endeavor, MCINTOSH teaches wherein a second network is a cellular packet-switched network (abstract). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since the use of a cellular packet-switched network is conventional and commonplace in the art and allows a system to be designed using standardized protocols.

Regarding claim 4, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said cellular packet-switched network is a GPRS network (MCINTOSH – paragraph 50).

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said authentication message is an EAP message. In the same field of endeavor, MCINTOSH teaches wherein an authentication message is an EAP message (paragraph 68, 71, 83). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since such a modification would provide authentication means using a standardized protocol.

Regarding claim 6, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said EAP message is an EAP SIM or EAP AKA message (MCINTOSH - 92).

Regarding claim 7, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said authentication message is an EAP Challenge Response message (MCINTOSH – 124-147).

Regarding claim 13, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said received authentication message is based on an EAP protocol. In the same field of endeavor, MCINTOSH teaches wherein an authentication message is based on an EAP protocol (paragraph 68, 71, 83). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since such a modification would provide authentication means using a standardized protocol.

Regarding claim 14, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said received authentication message is an EAP Challenge Response message (MCINTOSH – 124-147).

Regarding claim 15, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. O'NEILL further discloses wherein said

authentication server is a standalone authentication server (abstract; paragraph 24, 31), however, O'NEILL does not expressly disclose the use of a WLAN authentication server. In the same field of endeavor MCINTOSH discloses the use of a WLAN authentication server (paragraph 43-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since the use of wireless local area networks is conventional and commonplace in the art and allows a system to be designed using standardized protocols.

Regarding claim 16, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said processor server is a GGSN. In the same field of endeavor, MCINTOSH discloses wherein a processor [**authentication server**] is a GGSN (paragraph 61, 65). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since the use of a cellular packet-switched network is conventional and commonplace in the art and allows a system to be designed using standardized protocols.

Regarding claim 22, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said authentication message is an EAP message. In the same field of endeavor, MCINTOSH teaches wherein an authentication message is an EAP message (paragraph 68, 71, 83). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the

teachings of MCINTOSH, since such a modification would provide authentication means using a standardized protocol.

Regarding claim 23, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said authentication message is an EAP Challenge Response message (MCINTOSH – 124-147).

Regarding claim 24, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said EAP message is an EAP SIM or EAP AKA message (MCINTOSH - 92).

Regarding claim 26, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said service is a GPRS service. In the same field of endeavor, MCINTOSH discloses wherein service is a GPRS service (paragraph 50). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since the use of a cellular packet-switched network is conventional and commonplace in the art and allows a system to be designed using standardized protocols.

Regarding claim 37, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said authentication message is an EAP message. In the same field of endeavor, MCINTOSH teaches wherein an authentication message is an EAP message

(paragraph 68, 71, 83). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since such a modification would provide authentication means using a standardized protocol.

Regarding claim 38, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said authentication message is an EAP Challenge Response message (MCINTOSH – 124-147).

Regarding claim 43, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said authentication message is an EAP message. In the same field of endeavor, MCINTOSH teaches wherein an authentication message is an EAP message (paragraph 68, 71, 83). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of MCINTOSH, since such a modification would provide authentication means using a standardized protocol.

Regarding claim 44, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said authentication message is an EAP Challenge Response message (MCINTOSH – 124-147).

Regarding claim 45, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH

further discloses wherein said EAP message is an EAP SIM or EAP AKA message (MCINTOSH - 92).

Regarding claim 47, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and MCINTOSH further discloses wherein said cellular packet-switched network is a GPRS network (MCINTOSH – paragraph 50).

9. Claims 8, 9, 17, 25, 39, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'NEILL (US 2003/0176188) in view of TOMOIKE (US 2002/0107964).

Regarding claim 8, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said service selection information comprises at least one access point name parameter. In the same field of endeavor, TOMOIKE discloses wherein information comprises at least one APN parameter (paragraph 42-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of TOMOIKE, since APN's and NAI's (as disclosed by O'NEILL) were are-recognized equivalents at the time the invention was made and one of ordinary skill in the art would have found it obvious to substitute APN's for NAI's for identifying network services.

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and TOMOIKE

further discloses wherein said at least one APN parameter comprises an APN, a username and a password (TOMOIKE – paragraph 42-44).

Regarding claim 17, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. O'NEILL further discloses wherein said service selection information comprises at least one network parameter (paragraph 24, 31), however, O'NEILL does not expressly disclose wherein at least one network parameter comprises an APN. In the same field of endeavor, TOMOIKE discloses wherein at least one network parameter comprises an APN (paragraph 42-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of TOMOIKE, since APN's and NAI's (as disclosed by O'NEILL) were are-recognized equivalents at the time the invention was made and one of ordinary skill in the art would have found it obvious to substitute APN's for NAI's for identifying network services.

Regarding claim 25, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. O'NEILL further discloses wherein said service selection information comprises at least one network parameter (paragraph 24, 31), however, O'NEILL does not expressly disclose wherein at least one network parameter comprises an APN. In the same field of endeavor, TOMOIKE discloses wherein at least one network parameter comprises an APN (paragraph 42-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of TOMOIKE, since APN's and NAI's (as disclosed by O'NEILL) were are-recognized equivalents at the time the invention was

made and one of ordinary skill in the art would have found it obvious to substitute APN's for NAI's for identifying network services.

Regarding claim 39, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said service selection information comprises at least one access point name parameter. In the same field of endeavor, TOMOIKE discloses wherein information comprises at least one APN parameter (paragraph 42-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of TOMOIKE, since APN's and NAI's (as disclosed by O'NEILL) were are-recognized equivalents at the time the invention was made and one of ordinary skill in the art would have found it obvious to substitute APN's for NAI's for identifying network services.

Regarding claim 46, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, O'NEILL does not expressly disclose wherein said service selection information comprises at least one access point name parameter. In the same field of endeavor, TOMOIKE discloses wherein information comprises at least one APN parameter (paragraph 42-44). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify O'NEILL to include the teachings of TOMOIKE, since APN's and NAI's (as disclosed by O'NEILL) were are-recognized equivalents at the time the invention was made and one of ordinary skill in the art would have found it obvious to substitute APN's for NAI's for identifying network services.

10. Claims 10, 11, 18, 20, 40, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'NEILL (US 2003/0176188) in view of TOMOIKE (US 2002/0107964) and further in view of BUDDHIKOT et al (US 2003/00146464).

Regarding claim 10, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein the parameter is encrypted. In a similar field of endeavor, BUDDHIKOT discloses wherein a parameter is encrypted (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 11, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein at least one of said APN parameter is encrypted so that at least one APN parameter can only be decrypted at a network defined by the APN. In a similar field of endeavor, BUDDHIKOT discloses wherein at least one of said message parameters is encrypted so that said at least one access point name parameter can only be decrypted at the network defined by the message. (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and

TOMOIKE to include the teachings of BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 18, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and TOMOIKE further discloses wherein said APN is in said authentication message, however, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein the parameter is encrypted. In a similar field of endeavor, BUDDHIKOT discloses wherein a parameter is encrypted (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 20, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and TOMOIKE further discloses wherein at least one of said APN parameter is forwarded by the processor to said access point (O'NEILL - paragraph 24, 31). However, the combination of O'NEILL and TOMOIKE does not expressly disclose forwarding the parameter in an encrypted manner. In a similar field of endeavor, BUDDHIKOT teaches forwarding a parameter in an encrypted manner (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of

BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 40, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and TOMOIKE further discloses wherein said APN is in said authentication message, however, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein the parameter is encrypted. In a similar field of endeavor, BUDDHIKOT discloses wherein a parameter is encrypted (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 42, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. The combination of O'NEILL and TOMOIKE further discloses wherein at least one of said APN parameter is forwarded by the processor to said access point (O'NEILL - paragraph 24, 31). However, the combination of O'NEILL and TOMOIKE does not expressly disclose forwarding the parameter in an encrypted manner. In a similar field of endeavor, BUDDHIKOT teaches forwarding a parameter in an encrypted manner (paragraph 24, 31). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of

BUDDHIKOT, since encryption and decryption of a message provides secure communication over a wireless communication link.

11. Claim 19 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'NEILL (US 2003/0176188) in view of TOMOIKE (US 2002/0107964) and further in view of LIOY et al (US 2003/0220107).

Regarding claim 19, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein at least one of said APN parameters is decrypted in said processor. In a similar field of endeavor, LIOY discloses wherein at least one parameter is decrypted in a processor [**authentication server**] (paragraph 43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to include the teachings of LIOY, since encryption and decryption of a message provides secure communication over a wireless communication link.

Regarding claim 41, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, the combination of O'NEILL and TOMOIKE does not expressly disclose wherein at least one of said APN parameters is decrypted in said processor. In a similar field of endeavor, LIOY discloses wherein at least one parameter is decrypted in a processor [**authentication server**] (paragraph 43). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of O'NEILL and TOMOIKE to

include the teachings of LIOY, since encryption and decryption of a message provides secure communication over a wireless communication link.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARIEL BALAOING whose telephone number is (571)272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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